

The following reports were read and referred to the Publication Committee:—

REPORT OF THE PRESIDENT

FOR THE YEAR ENDING NOVEMBER 30, 1880.

Nothing has occurred during the year to disturb the Society in its usual course. It is a source of satisfaction that its financial condition is better now than it was at the close of last year. Although its current income is not yet quite equal to the sum it needs or desires, it still remains free from debt.

The effort begun more than a year ago to collect subscriptions for the purpose of establishing a maintenance or working-fund, has not been as successful as was expected. The aggregate of subscriptions is now \$2680, of which \$1550 have been paid. It may be hoped that at the close of 1881 the Treasurer will be able to report that the Maintenance Fund has been largely increased. The effort should not be abandoned in despair.

In this connection it may be mentioned that an addition of \$3000 to the permanent fund of the Academy has been made by reserving for investment, under a by-law (Chapter IX) enacted May, 1876, all moneys received from members for commuting their semi-annual contributions, as long as they may retain their membership. This commutation fee is designated life-membership, and the fund accruing from it is conveniently called the Life-membership Fund. The income from it is applicable to the payment of the ordinary expenses of the society.

The Charlotte M. Eckfeldt Fund, formed of money received, June, 1879, from the executors of the late Mrs. C. M. Eckfeldt, who made the Academy one of her residuary legatees, amounts to \$2466.86. The income from it has been temporarily assigned to the use of the Publication Committee.

The heirs of the late Mr. Joshua T. Jeanes, who died suddenly January 3d, 1880, have generously given to the Academy twenty thousand dollars, the sum which he had indicated his intention to bequeath to the Society in an unsigned codicil to his last will. The money has been invested in approved mortgages, and by order of the Academy constitutes the Joshua T. Jeanes Fund, the income from which has been duly made applicable, like that of the Maintenance Fund, to the general purposes of the society.

The Thomas B. Wilson Fund, the Elizabeth Phyle Stott, the Isaac Barton, and Publication Funds are unchanged. Owing to circumstances over which the Academy has no control, the income of the year from the I. V. Williamson Library Fund has been somewhat diminished. But it is confidently conjectured that in a short time it will be the same that it has been in the past.

The financial condition of the Academy will be found detailed in the Report of the Treasurer, to whom the society is much indebted for the time, care and labor which he bestows in the discharge of the duties of his office.

Five young men have been receiving the benefit of the Jessup Fund; two for two months each, one for five, one for six, and one for eight months during the year.

A brief account of the origin of this fund, and the manner of its application, may interest those especially who have become members of the Society within the past few years.

Mr. Augustus E. Jessup, who became a member of the Academy November, 1818, and died in Wilmington, Del., December 17th, 1859, gave the institution and its purposes a high place in his estimation. He had expressed his intention to bestow on the Academy, if ever able, a sum of money to constitute a perpetual fund for specified purposes. His children determined that this intention of their father should be realized, although he left no written instructions on the subject.

In a letter dated March 6th, 1860, and addressed to Dr. Isaac Lea, then President of the Academy, they stated that, in accordance with what they believed to be the intention of their father, they proposed "to pay to the Academy one hundred and twenty dollars per annum to be applied to its Publication Fund; and the further sum of four hundred and eighty dollars per annum, to be used for the support of one or more deserving poor young man or men who may desire to devote the whole of his or their time and energies to the study of the natural sciences; and that they looked forward to investing in trust, at some not distant time, the principals of the sums named, for the purpose of creating a perpetual fund for the above-named uses."

Substantially these are all the instructions given to the Academy for its guidance in the administration of these two funds—one to be applied to its publications, and the other to the support of students—aggregating six hundred dollars a year. They paid

this sum regularly from March, 1860, until February, 1872, when they transferred to the Academy—"the principals of the sums named"—ten consolidated mortgage bonds of the Philadelphia and Reading Railroad Company. Thus Mr. Jessup's children generously fulfilled their promise and realized their father's intention. They have also consented that women may enjoy the benefits of the student fund.

The action and language of the Messrs. Jessup imply, without any doubt whatever, that their intention was to give to the Academy six hundred dollars per annum: one hundred and twenty dollars applicable only to the Publication Fund, and four hundred and eighty dollars to the support of students. And to secure this sum to the Academy annually forever, they gave to it in trust an investment, the par value of which is ten thousand dollars, an amount equal, at the rate of six per cent per annum, to "the principals of the sums named for the purpose of creating a perpetual fund," designed to be the impersonal successor and never-dying agent of the Messrs. Jessup for the payment of six hundred dollars annually to the Academy.

As trustee, the Academy is bound in honor, if not in law, to adopt such proper measures as may be necessary from time to time, to preserve entire not only the principal sum, but also to prevent, if possible, the income from ever becoming less than six hundred dollars, the specified sum it has been authorized and directed to expend annually for the purposes named. Reduction of this income must be detrimental to those who may properly ask assistance from it, to the extent of any diminution it may suffer. It is designed to benefit students of the future as well as those of the current time. The interests of those of the coming centuries in it are entitled to present consideration and protection, if needed.

The instructions under which the Jessup Fund for students was established, describe in general terms the requisite qualifications of those upon whom the Academy may bestow its benefits.

An eligible candidate for aid from the Jessup Fund, is required by those instructions to possess the following qualifications:

1. Evident "desire" to devote the whole of his time and energies to the study of the natural sciences.
2. He must be so poor as to be dependent on his own labor for a livelihood, and therefore, unless he can be otherwise supported,

he cannot devote the whole of his time and energies to the study of the natural sciences, to which he seeks to dedicate himself.

3. He must be "deserving" of support in this connection. This condition means much. To deserve any support from the Jessup Fund, he should possess a quick natural intelligence, above the average; a good and sufficient education, including, perhaps, a knowledge of the German and French languages; industrious and orderly ways; integrity in every sense beyond suspicion, and lastly, a manifest intention to dedicate his lifetime and energies to the study of the natural sciences.

4. He must be "young"—say under twenty-five years of age.

Under such conditions, and with faculties suitably equipped and disposed, the candidate may pass through an apprenticeship here provided, and become a practical naturalist.

The application of the fund is entirely at the discretion of the Academy. It would not violate the letter of the trust by using it to support approved students of the natural sciences without giving them instruction, or granting them the use of its library or museum or its hall as their workshop. The trust does not require that the Academy shall be the preceptor of the beneficiaries of the Jessup Fund in any degree. But inasmuch as one of the functions which the society has prescribed for itself is to impart and diffuse knowledge, it seems peculiarly proper that it should direct and facilitate the studies of these beneficiaries.

The four hundred and eighty dollars may be given annually to support one, or be divided between two or more, as may seem to the Academy expedient. The time during which any one may receive assistance from the fund, is limited at the discretion of the Academy.

After due consideration of the subject at the start, it was determined that the approved candidate should be received at first on probation, for one month, and if the trial were satisfactory, he might be appointed a beneficiary for two years, and then retire in favor of another, unless there should be special reasons for his continuance.

Inasmuch as the members of the society pay dues for their right to use the library and museum, it is considered proper to require the beneficiaries of the Jessup Fund to give, daily, a part of their time and labor to the Academy, under the direction of the curators, as compensation for instruction, and the use of the

Academy's property. This time is employed in work incident to taking care of, mounting, and arranging specimens in the museum, such as cleaning them when necessary, labeling, etc., a kind of work which is pertinent to the vocation of a naturalist, and through which the beneficiaries become familiarized with natural objects, more perfectly than they can be in any other way. It should not be forgotten that the Academy has always been dependent, almost exclusively, upon the unpaid labor of its members for the care of its museum, and this circumstance, perhaps, explains why beneficiaries of the Jessup Fund are expected to do any kind of work in the Academy that the curators and other members are in the habit of doing. They are, in fact, regarded as almost apprentices, who should be ever ready to avail themselves of the opportunities afforded to learn everything pertinent to the career of a naturalist.

Applications for the benefits of the Jessup Fund, are considered and decided by the Council of the Academy.

Between March, 1860, and November, 1880, thirty-four persons have received aid from the fund, for a longer or shorter period than two years. Of these, five have died, well known and much respected naturalists. Five of those, now living, are professors and eminent men. It is believed that all of this class of gentlemen have acquitted themselves satisfactorily, and that all gratefully appreciate the beneficence of the Jessup Fund, as well as the advantages derivable from it; and it is hoped that none will ever regret any of the work he has done, or the time he has spent in the Academy.

The annual reports of the curators and librarian show the extent of increase of the museum and library; and those from the several sections of the Academy indicate that they are active and prosperous.

During the year, more than 600 pages of the Proceedings have been published, and the fourth part of the eighth quarto volume of the Journal of the Academy is passing through the press.

The proceedings of the Entomological Section are printed on the premises by some of its members, and issued separately. This section has published more than 370 pages and 7 plates during the year.

The second volume of a "Manual of Conchology, Structural and Systematic, with Illustrations of the Species," by George W.

Tryon, Jr., published by the author and issued from the Academy, has been published during the year. It includes 289 pages of text, 70 plates with 975 figures.

Professor Leidy's admirable work on "Fresh-Water Rhizopods of North America," forming Vol. XII of the final reports of the United States Geological and Geographical Survey of the Territories, under the direction of Dr. F. V. Hayden, is so closely connected with the Academy, that its publication during the year may be mentioned here. Dr. Leidy, at the stated meetings of the society, gave verbal accounts of very many fresh-water rhizopods which are described in his work, and the Academy's library was the sole source from which he was enabled to prepare the bibliography of the subject.

Few persons devote their whole time and energies to natural history for a living. Generally, the study is an occupation for leisure hours, and may be regarded as a secondary pursuit among us, which yields little or nothing towards a livelihood. Satisfactory study of natural history requires so much to aid its votaries, in the way of collections and books, that it is extremely rare to find any one person rich enough to procure all that is needed. For this reason many of like tastes associate, each contributing his quota, for the purpose of gathering what is necessary or desirable to be used in common for self-instruction.

In one sense the Academy may be regarded as an association of this kind.

A prominent object of the Society is to afford opportunity to those who desire to undertake self-culture in any or all the departments of the natural sciences. From its beginning in 1812, continuously to the present time, members have freely contributed specimens to its museum, and books to its library. Besides materials of this kind they have given money liberally, established permanent funds for several specific purposes, and employed whatever time they could fairly take from their daily avocations in working with their own hands to render the constantly increasing means of study as easily available as possible. The value of personal labor gratuitously given to establish and promote the growth of this institution cannot be over-estimated. A result of the joint efforts of the members of the society since its foundation is the opportunity of self-instruction here liberally afforded to those who may choose to avail themselves of it.

Although the museum is deficient in many of its departments, it is remarkably sufficient in some, and as a whole is very extensive, and in every sense very valuable. The unequal development or growth of the several departments is ascribable to the dependence of the collections for increase on donations exclusively, and the want of money to purchase desiderata, and not to indifference or ignorance of those to whom the immediate care of the museum is confided.

At this time the library as a whole, though not complete, is perhaps the best collection of works on natural history in this country, and the Library Fund, given by Mr. I. V. Williamson, provides liberally for its increase.

The opportunity for self-culture to be found now in the museum and library, with all their deficiencies, is a result of the generosity, goodwill, industry and benevolence of very many members and friends of the Society. Some expert naturalists may disparage this opportunity of self-culture, such as it is, and take pleasure in pointing out its defects and deficiencies, but those just entering the field, as well as those not yet proficient will find it fully sufficient for their use and worthy of cordial approbation.

Objection has been made to the regulation which restricts the use of specimens and books to the premises of the Academy, suggesting that study would be very much facilitated by loaning specimens and books to members, especially to those who are advanced students and experts. The answer is that the loan of specimens and books, which may be regarded as a luxury rather than as a necessity to students, would somewhat facilitate the work of one borrower, but while they were in his possession the studies of several persons having occasion to consult the same specimens and books might be much retarded or hindered. Besides, loaning books and specimens increases the chance of their loss and injury.

After ample experience in the practice of loaning, and due consideration of the whole question, the Academy adopted the existing regulation of loaning specimens only on a recommendation of a majority of the curators, approved by a vote of the Academy; and by prohibiting the circulation of books, has made the library a library of reference exclusively. It is confidently believed that the common interests of all concerned are best served by strict adherence to this practice. It promises "the greatest good to the greatest number" of those who have occasion to examine

specimens or consult books, because, come when they may, from far or near, they are reasonably sure to find in the building whatever belongs to the museum or library.

The regulation in question is approved by an experience of more than a quarter of a century. It is supposable that it would have been changed long ago had the members of the society believed it to be injurious to their common interests.

It may be freely granted, however, that there are persons—those who are seldom spontaneously considerate of the convenience and rights of others to the use of property held in common, to whom all restrictive rules appear unwise—especially when they are an obstacle to the satisfaction of some transient interest or desire. The same individuals would probably discover a grievance in the loaning system, should they find that those very specimens and books which they desire to refer to at the moment, had just been borrowed and taken out of the building, to be returned at the end of a fortnight or possibly a month. Persons of such temperament, unhappily for themselves as well as their associates, are prone to find that “All goes wrong, and nothing as it ought,” where others of more happy constitution discover nothing unpleasant.

The opportunity of self-instruction in the Academy is good as it now is. It is accessible to those who may desire to make use of it under the rules of the society. They must come spontaneously. The Academy is not prepared to enlist regulars, hire mercenaries, or solicit volunteers in order to bring into more extensive use the opportunity of self-instruction which it has built up.

When both the museum and library were easily contained in one small room, the effort of the Academy to increase its means and opportunities of self-instruction was approved. No one complained of its deficiencies. All cheerfully endeavored to use profitably what it had. The propriety of admitting to its membership those who possessed no other qualifications than friendliness to scientific pursuits and personal respectability was not questioned. But since the possessions of the Academy have grown to be extensive and of great value in every sense, there are individuals who lament that they are not greater, and seem pleased to disparage its condition, its course and its organization. Ignoring all that is recorded in the sixteen volumes of the first and second series of the Journal of the Academy and in the thirty-two

volumes of its Proceedings, they imagine that it sadly lacks the afflatus of pure science and does nothing to promote research. Their tone implies that the capabilities of the institution, the potentialities of its possessions might be made more useful to truly qualified investigators by reforming the present system and policy, which are too broadly in the interest of beginners and amateurs in science. They seem to believe that the collections should be placed under the control of expert specialists, with power to loan specimens at their discretion; that the books of the library should be allowed to circulate freely, and finally, that the society should consist of proficient exclusively, or at least include a privileged class of experts.

Whether the Academy should now permit its extensive museum and library, which have cost so much time, labor and money to form, to be diverted from their present ways of usefulness to students generally, and appropriated by skilled investigators, is a question too important to be hastily decided.¹

The by-law of May, 1876, which provides for the appointment of professors, remains inoperative. No candidate has presented himself during the year. No report has been received from the Professor of Histology and Microscopic Technology, who was appointed April 16, 1877.

In conclusion, it may be said that the condition of the Academy has never been better since its foundation than it is at the present time. It is independent of debt, and its income has been so far increased that it is hoped, under a careful administration of its financial affairs, it will soon be sufficient to meet the usual demands.

The whole is submitted.

W. S. W. RUSCHENBERGER.

¹ A society composed exclusively of proficient may be desirable and even essential to the progress of original investigation in Philadelphia. Those who are of this opinion might possibly form such a society at once, and in the course of time acquire all it may need; and, without coveting or attempting to appropriate its possessions, permit the Academy to exist for the benefit of those proficient who approve of its organization as well as of beginners and amateurs. Some of these might become qualified to be admitted to membership of any society composed exclusively of generally recognized masters in science.